



1550 nm Select Cutoff Single-Mode Fibers

Nufern's 1550B-HP high-performance select cutoff bend insensitive single-mode fiber is optimized for use in small form factor active and passive components requiring tight bend radii. With a bend loss considerably lower than SMF-28™, 1550B-HP is ideal for the video leg in FTTH CWDM and applications such as smaller form factor C and L-band components and low NA planar waveguides.

Typical Applications

- FTTx components and modules
- Compact C and L-band components
- Low NA planar waveguides
- Metro components

Features & Benefits

- Optimized cutoff for 1550 nm wavelength — Extremely low bend loss
- Tight mechanical and optical tolerances — high yield component manufacturing
- Mode matched to SMF-28 — Low splice loss to standard fibers
- High proof test for tighter bends — Critical for long-term reliability in tight bend applications

Optical Specifications

Operating Wavelength	1460 – 1620 nm	1460 – 1620 nm
Core NA	0.130	0.130
Mode Field Diameter	9.5 ± 0.5 μm @ 1550 nm	9.5 ± 0.5 μm @ 1550 nm
Cutoff	1400 ± 50 nm	1400 ± 50 nm
Core Attenuation	≤ 0.5 dB/km @ 1550 nm	≤ 0.5 dB/km @ 1550 nm

Geometrical & Mechanical Specifications

Cladding Diameter	125.0 ± 1.0 μm	80.0 ± 1.0 μm
Core Diameter	9.0 μm	9.0 μm
Coating Diameter	245.0 ± 15.0 μm	165.0 ± 10.0 μm
Coating Concentricity	< 5.0 μm	< 5.0 μm
Core/Clad Offset	≤ 0.50 μm	≤ 0.50 μm
Coating Material	UV Cured, Dual Acrylate	UV Cured, Dual Acrylate
Operating Temperature Range	-55 to 85 °C	-55 to 85 °C
Short Term Bend Radius	≥ 6 mm	≥ 4 mm
Long Term Bend Radius	≥ 13 mm	≥ 9 mm
Proof test Level	≥ 200 kpsi (1.4 GN/m²)	≥ 200 kpsi (1.4 GN/m²)



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Custom developed fiber (FUD) specifications are subject to change without notice. Other configurations such as alternative form factors, optimized cut-off and UV cured color coating may be available. Let us know how Nufern can assist with your requirements.

